To: T10 Technical Committee
From: Robert Sheffield (Robert.L.Sheffield@intel.com), Intel Corporation
Date: December 29, 2003
Subject: T10/04-028r0; SAS-1.1: Clarify phy disable in route-table initialization

Revision History
Revision 0 (December 29, 2003) first revision

Related Documents
SAS1.1-r02 – Serial Attached SCSI-1.1 revision 012

Overview
In subclause 4.7.6.4 Discover Process, in the middle of page 67 just before the change bar; the paragraph describes when to disable a phy, but references the SMP CONFIGURE ROUTE INFORMATION function. To disable the phys requires a PHY CONTROL function and that function should be referenced. Another paragraph is needed to state when the CONFIGURE ROUTE INFORMATION function should be used to disable a route entry.

Furthermore, the paragraph states the configuration client, "…may break the loop by disabling all the expander phys attached to that SAS address except for the expander phy with the lowest phy identifier in the expander device…" If it's a wide port the configuration client should disable all but the lowest numbered sequence of phys that attach to a common port.

Suggested Changes
4.7.6.4 Discover Process - middle of page 67 just before the change bar

Modify the following text as shown:

> If the management application client detects a port with a SAS address it has already found attached to another expander device, it has found a routing loop and may break the loop by disabling all the expander phys attached to that SAS address except for the set of expander phys with the lowest sequence of phy identifiers attached to a common SAS port in the expander device with the lowest SAS address by using the SMP CONFIGURE ROUTE INFORMATION PHY CONTROL function (see 10.4.3.9).
>
> The SMP CONFIGURE ROUTE INFORMATION function may be used to disable selected route table entries for each phy in certain cases not associated with routing loops (e.g. entries referencing the SAS address of the expander device being configured – a.k.a. self-referencing addresses).